

## Claims

1. A method for communicating data rate control information comprising:

2 determining a state of a data connection between a mobile station and a  
base station; and

4 gating transmissions of data rate control information on a data rate control  
channel, from said mobile station to said base station, based on said determined  
6 state.

2. The method as recited in claim 1 wherein said determined state is an idle  
2 open state.

3. The method as recited in claim 2 wherein said gating ceases transmission  
2 of data rate information on said data rate control channel.

4. The method as recited in claim 1 wherein said determined state is a busy  
2 open state.

5. The method as recited in claim 4 wherein said gating allows transmission  
2 of data rate information on said data rate control channel.

6. The method as recited in claim 1 further comprising:

2           determining a transition of said determined state from an idle open state to  
a busy open state, wherein said gating in response allows transmission of data  
4   rate information on said data rate control channel.

7.    The method as recited in claim 1 further comprising:

2           determining a transition of said determined state from a busy open state to  
an idle open state, wherein said gating in response ceases transmission of data  
4   rate information on said data rate control channel.

8.    A method for communicating data rate control information comprising:

2           communicating a request on a data channel from a mobile station to a  
base station for delivery of a data file on a traffic channel from said base station  
4   to said mobile station; and

starting, in response to said communicating said request, communication  
6   of data rate control information on a data rate control channel from said mobile  
station to said base station.

9.    A method for communicating data rate information comprising:

2           concluding a delivery of a data file on a traffic channel from a mobile  
station to a base station; and

4           ceasing, in response to said concluding, communication of data rate  
control information on a data rate control channel from said mobile station to said  
6   base station.

10. An apparatus for communicating data rate information comprising:

- 2 a data rate channel gate; and
- a data rate channel gate controller to control said data rate channel gate,
- 4 wherein said data rate channel gate controller allows transmission of data rate information, through said data rate channel gate, on a data rate channel from a
- 6 mobile station during a busy open state and ceases transmission of data rate information, through said data rate channel gate, on said data rate channel from
- 8 said mobile station during an idle open state.

11. The apparatus as recited in claim 10 further comprising:

- 2 an encoder for encoding data rate information of said data rate channel to produce encoded data rate information; and
- 4 a transmitter for transmitting said encoded data rate information.

12. An apparatus for communicating data rate information comprising:

- 2 a data rate channel gate;
- a data rate channel gate controller to control said data rate channel gate;
- 4 and
- a data channel encoder for encoding data targeted for a base station,
- 6 wherein said data rate channel gate controller allows transmission of data rate information, through said data rate channel gate, on a data rate channel from a
- 8 mobile station when said data targeted for said mobile station includes a request for transmission of data on a traffic channel from said base station to said mobile

10 station and ceases transmission of data rate information, through said data rate  
channel gate, on said data rate channel from said mobile station after concluding  
12 delivery of said data on said traffic channel.

13. The apparatus as recited in claim 12 further comprising:

2 an encoder for encoding data rate information of said data rate channel to  
produce encoded data rate information; and

4 a transmitter for transmitting said encoded data rate information and said  
encoded data targeted for said base station.

14. The apparatus as recited in claim 12 further comprising:

2 a receiver for receiving transmission on said traffic channel from said base  
station.

15. A processor for controlling communication of data rate control information  
2 comprising:

4 means for determining a state of a data connection between a mobile  
station and a base station;

6 means for gating transmissions of data rate control information on a data  
rate control channel, from said mobile station to said base station, based on said  
determined state.

16. The processor as recited in claim 15 further comprising:

2 means for determining a transition of said determined state from an idle  
open state to a busy open state, wherein said gating in response allows  
4 transmission of data rate information on said data rate control channel; and  
means for determining a transition of said determined state from a busy  
6 open state to an idle open state, wherein said gating in response ceases  
transmission of data rate information on said data rate control channel.

17. An apparatus for communicating data rate information comprising:

2 means for a data rate channel gate; and  
means for a data rate channel gate controller to control said data rate  
4 channel gate, wherein said data rate channel gate controller allows transmission  
of data rate information, through said data rate channel gate, on a data rate  
6 channel from a mobile station during a busy open state and ceases transmission  
of data rate information, through said data rate channel gate, on said data rate  
8 channel from said mobile station during an idle open state.

18. The apparatus as recited in claim 17 further comprising:

2 means for an encoder for encoding data rate information of said data rate  
channel to produce encoded data rate information; and  
4 a transmitter for transmitting said encoded data rate information.

19. An apparatus for communicating data rate information comprising:

2 means for a data rate channel gate; and

means for a data rate channel gate controller to control said data rate  
 4 channel gate;

means for a data channel encoder for encoding data targeted for a base  
 6 station, wherein said data rate channel gate controller allows transmission of  
 data rate information, through said data rate channel gate, on a data rate channel  
 8 from a mobile station when said data targeted for said mobile station includes a  
 request for transmission of data on a traffic channel from said base station to  
 10 said mobile station and ceases transmission of data rate information, through  
 said data rate channel gate, on said data rate channel from said mobile station  
 12 after concluding delivery of said data on said traffic channel.

20. The apparatus as recited in claim 19 further comprising:

2 means for an encoder for encoding data rate information of said data rate  
 channel to produce encoded data rate information; and

4 means for a transmitter for transmitting said encoded data rate information  
 and said encoded data targeted for said base station.

21. The apparatus as recited in claim 19 further comprising:

2 means for a receiver for receiving transmission on said traffic channel  
 from said base station.